

1 12. An appliance leakage current interrupter (ALCI) for interrupting the flow of current through a pair of lines extending between a source of power and a load, said appliance leakage current interrupter comprising:

a. a circuit breaker having a pair of normally closed switches, one switch being located in each of said lines between the source of power and the load;

b. a relay circuit for selectively opening the pair of normally closed switches;

c. a fault detection circuit for detecting the presence of a ground fault condition in said pair of lines and for causing said relay circuit to open said circuit breaker when said fault condition detected exceeds a predetermined value, said fault detection circuit comprising an integrated circuit chip and a transformer;

3 d. a single-sided circuit board having a bottom surface and a top surface, the top surface having a pattern of conductive paths;

e. said integrated circuit chip being mounted on the top surface of said single-sided circuit board and said relay circuit and transformer being mounted on said bottom surface, said transformer including a common core having three laminated layers, a primary winding and a secondary winding, said pair of lines serving as the primary winding for the transformer, each of said pair of lines being wrapped twice around the core of said transformer;

f. a generally rectangular-shaped housing, said housing being mounted on an end of an electrical cord connected to the load, said electrical cord having a longitudinal axis;

g. a prong assembly for supplying power from the source of power to the remainder of said appliance leakage current interrupter, said prong assembly comprising:

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- i. a pair of contact prongs which extend through said housing;
 - ii. a pair of conductive bracket arms positioned within said housing, each bracket arm being in contact with an associated contact prong; and
 - iii. a pair of conductive contact arms pivotally mounted within said housing, each contact arm capable of selective contact with an associated bracket arm, said contact arms being connected to the remainder of said appliance leakage current interrupter such that only when each contact arm is in contact with its associated bracket arm, power is supplied to said appliance leakage current interrupter;
 - iv. said pair of prongs extend out from said housing at an angle of 90 degrees from the longitudinal axis of the cord;
 - h. a power supply circuit for providing alternating current to the integrated circuit chip, said power supply circuit comprising a metal oxide varistor for providing surge suppression from the source of power and a voltage dropping resistor for supplying the appropriate alternating current voltage that is required by the integrated circuit chip/
 - i. a test circuit for testing whether said appliance leakage current interrupter is properly functioning.
 - j. said relay circuit comprising a solenoid for selectively opening the pair of switches and a rectifier for energizing the solenoid upon detection of a ground fault condition; and
 - k. a reset assembly for resetting said appliance leakage current interrupter after detection of a ground fault condition, said reset assembly being capable of pivoting each of

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the contact arms out of contact from its associated bracket arm to create an open connection,
thereby preventing power from being supplied to said appliance leakage current interrupter.

C Rewrite claim 1 as follows:

1. (Twice Amended) An appliance leakage current interrupter [(ALI)] (ALCI) for interrupting the flow of current through a pair of lines extending between a source of power and a load, said appliance leakage current interrupter comprising:

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- a. a circuit breaker having a pair of normally closed switches, one switch being located in each of said lines between the source of power and the load;
 - b. a relay circuit for selectively opening the pair of normally closed switches;
 - c. a fault detection circuit for detecting the presence of a ground fault condition in said pair of lines and for causing said relay circuit to open said circuit breaker when said fault condition detected exceeds a predetermined value, said fault detection circuit comprising an integrated circuit chip and a transformer; and
 - d. a single-sided circuit board , said single-sided circuit board having a [first side] bottom surface and a top surface [second side], the [second side] top surface having a pattern of conductive paths;
 - e. wherein said integrated circuit chip is mounted on the [second side] top surface of said single-sided circuit board and wherein said relay circuit and said transformer are mounted on the [first side] bottom surface of said single-sided circuit board.

REMARKS